

VOLTAGE RANGE: 20 - 100V
CURRENT: 8.0 A

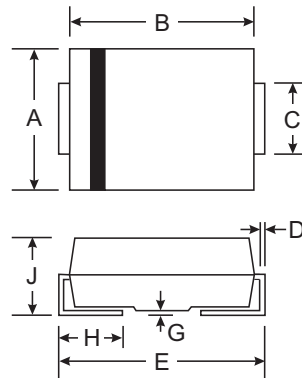
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



| SMC/DO-214AB | | |
|--------------|------|------|
| Dim | Min | Max |
| A | 5.59 | 6.22 |
| B | 6.60 | 7.11 |
| C | 2.75 | 3.18 |
| D | 0.15 | 0.31 |
| E | 7.75 | 8.13 |
| G | 0.10 | 0.20 |
| H | 0.76 | 1.52 |
| J | 2.00 | 2.62 |

All Dimensions in mm

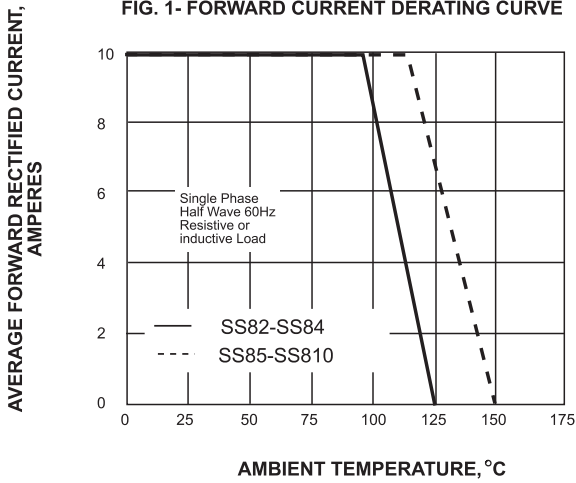
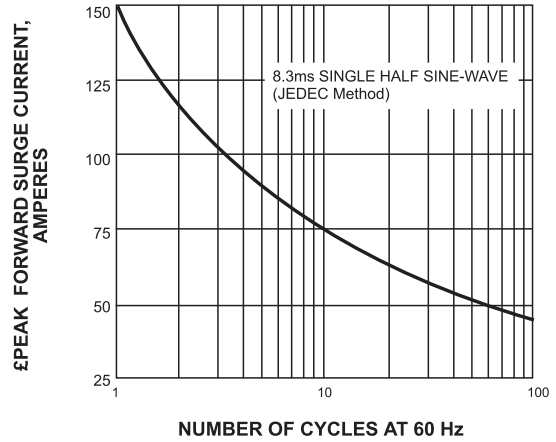
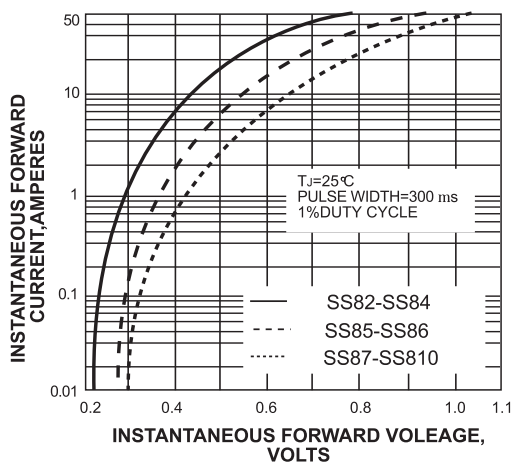
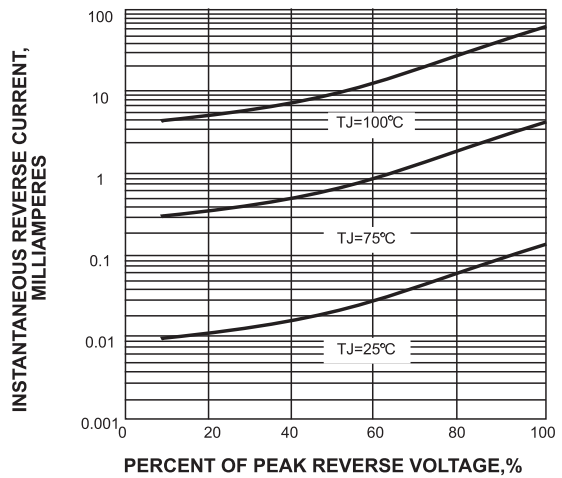
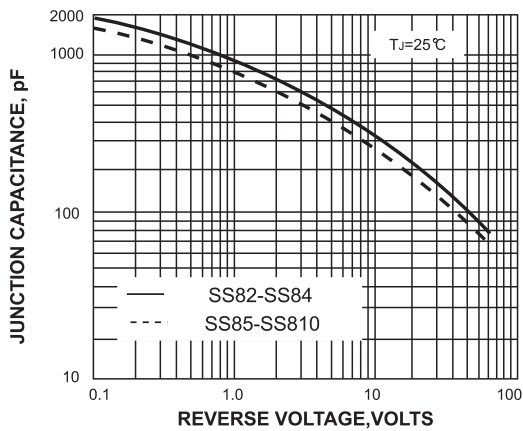


Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | SS82 | SS83 | SS835 | SS84 | SS85 | SS86 | SS88 | SS810 | Unit |
|--|---------------------|-------|------|-------|------|-------------|------|------|-------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | | | |
| Working Peak Reverse Voltage | V _{VRM} | 20 | 30 | 35 | 40 | 50 | 60 | 80 | 100 | V |
| DC Blocking Voltage | V _R | | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 14 | 21 | 24.5 | 28 | 35 | 42 | 56 | 70 | V |
| Average Rectified Output Current @T _L = 90°C | I _O | 8.0 | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 200.0 | | | | | | | | A |
| Forward Voltage @I _F = 8.0A | V _{FM} | 0.65 | | | | | | 0.85 | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C | I _{RM} | | | | | 1.0 | | | | mA |
| | | | | | | 20 | | | | |
| Typical junction capacitance (Note1) | C _J | | | | | 400 | | | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJA} | | | | | 18 | | | | °C/W |
| Operating Temperature Range | T _j | | | | | -65 to +125 | | | | °C |
| Storage Temperature Range | T _{STG} | | | | | -65 to +150 | | | | °C |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

FIG. 1- FORWARD CURRENT DERATING CURVE

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

FIG. 5-TYPICAL JUNCTION CAPACITANCE

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE
